Baines D. (2005). New framework for analysing practice? The Pharmaceutical Journal. 274: 56

New framework for analysing practice?

Darrin Baines, PhD, is a part-time senior researcher in pharmacy practice at King's College London

Catherine Hale, LLB, is lecturer in medical ethics and law, University of Birmingham

Pharmacy systems worldwide exhibit striking similarities and differences in their structure, operation and outcomes. For pharmacy practice academics and government policy-makers with responsibility for observing and reforming such systems, understanding their mechanics and their function is crucial.

To be scientifically valid, conclusions drawn in this area should be based upon the empirical testing of alternative theories, which attempt to explain how these systems operate.

With this end in mind, previous authors have noted that theories from sociology, psychology, anthropology, pedagogy and health economics had all been used to help explain observed pharmacy practice. According to these commentators, specific theories can serve different purposes, with most ultimately contributing to dynamism and diversity in research.

Given these possible benefits, we propose a new theoretical framework for analysing pharmacy practice that uses concepts from an emerging branch of the social sciences known as “new institutional economics”.

The basic framework outlined here will be introductory, as its full application requires an in-depth knowledge of the principles being applied. However, by using examples from recent developments in UK pharmacy policy, we hope to demonstrate how this theoretical approach could help shape the analysis and the evaluation of pharmacy practice systems worldwide.

New institutional economics

Traditionally, economists have been concerned with studying whether the markets we use to buy and to sell different goods and services are efficient. To this end, the profession developed a range of theories and models that explain how buyers and sellers interact.

At its core, the market model assumes that the world is static, that buyers and sellers are rational and that all markets eventually reach an equilibrium. Although this approach has dominated the profession's thoughts, during the past 30 years new thinking has evolved that challenges the theoretical orthodoxy.

In recent decades, economists have begun working on a new set of theories commonly called new institutional economics (NIE). NIE builds upon the fundamental assumptions of classical economics by incorporating a theory of institutions into the economist's toolkit.

According to Douglas North, a leading thinker in this new field, “institutions” are the “rules of the game in a society or, more formally, are the humanly devised constraints that shape human interactions”. Consequently, the behaviour of economic agents should not be seen as completely free, but as institutionally constrained. Given the emphasis on rules, we argue that pharmacy is an ideal subject for study using NIE, since the profession must adhere to several layers of professional, health service and pharmaceutical related constraints.

For instance, UK pharmacists must work within the institutions created by the 1968 Medicines Act, NHS regulations and their professional code of ethics. As part of these arrangements, failures to act legally or morally can be punished by the courts or by removal from the pharmacy register. With such penalties in place, our argument that the structure, operation and outcome of pharmacy systems are shaped by institutions may be uncontroversial to many within the profession.

Institutions of the NHS

From the perspective of NIE, pharmacists work within a range of institutions, notably those related to the funding and operation of the NHS.

Norms

Local policy

National policy

NHS regulations

UK common law

Figure 1: The NHS hierarchy of rules

As Figure 1 shows, UK common law underpins the whole operation of the health service. For instance, all practitioners have a duty of care to patients. Next, NHS provision is governed by laws and regulations designed to control the ways health bodies act in described situations. For instance, the Government recently passed new legislation for pharmacists who wish to work within an alternative terms of service and remuneration structure under the auspices of the Local Pharmaceutical Services scheme.

At a higher level, national NHS policy sets constraints on the actions that pharmacists and other health professionals may take, which are reinforced by policy decisions taken locally by primary care trusts.

Finally, within this hierarchy pharmacists may find that norms (that is, unwritten but usual ways of practising) will affect how they work. For instance, doctors in a local practice may follow a convention of prescribing a particular drug for a particular condition that may not normally be followed so systematically elsewhere. Consequently, the dispensing pharmacist has to obey a convention or norm when working as a professional within a hierarchy of other health service rules.

Therefore, as the list of NHS constraints suggests, if we wish to understand how pharmacy systems really function, investigating the institutions limiting the behaviour of pharmacists should be worthwhile.

Property rights

As discussed above, institutions tend to operate at a society-level in the sense that their rules or constraints affect all members of a given group. Given that society's rules impact upon the individual, economists use the term “property rights” to denote “the rules which specify what individuals are allowed to do with resources and the outputs of those resources”.

For instance, UK community pharmacists currently work within a national “control of entry” framework that gives individual proprietors specified rights to operate named pharmacies and to derive profits from doing so. Within NIE, property rights are an important issue because the ways in which resources are controlled by individuals — along with current technology — determine levels of efficiency in the economy.

According to economic theory, if individuals personally benefit from property rights that lead to inefficient outcomes for society as a whole, they will be unwilling to see them changed. For instance, the UK's competition regulator, the Office of Fair Trading, recently claimed that control of entry benefits pharmacists currently holding a contract at a cost to taxpayers and patients in terms of spending and choice.

As Douglas North states, in many situations inefficiencies exist because “rulers would not antagonise powerful constituents by enacting efficient rules that were opposed to their interests.” For instance, the Government has recently compromised and not fully followed the OFT recommendation of abolishing control of entry regulations because of the strength of the UK's pharmacy lobby.

Therefore, evidence suggests that property rights are an important issue for study, which determine how pharmacy systems are structured and function.

Transaction costs

From the perspective of NIE, one of the key limitations of traditional economic theory was its failure to take into account costs to buyers and to sellers not included in prices for goods and services. For instance, if you wish to buy a used car, after weeks of searching you may find that a private seller living 300km away is offering the model you want at a price lower than your local car dealer. Although the price is cheaper, you may find that the overall costs of completing the transaction are higher because you had to search longer and travel further to buy the chosen model.

Applied in the current context, transaction cost economics implies that the organisation of community pharmacy services will impose non-price costs on government, pharmacists and patients. Therefore, changes in the structure and the organisation of existing supply arrangements could alter the transaction costs faced by each party. For instance, the new contract for UK community pharmacists will increase the costs of being a pharmacist because of the introduction of new clinical governance standards.

In his seminal article on this subject, Coase suggested that transaction costs — not prices — determine the efficient size of a “firm”. In this context, Coase's argument suggests that the costs of supplying pharmacy services will determine the types of firms that develop in this sector of the economy.

As pharmacists respond to their new contract, we may observe vertical (pharmacist and wholesaler) or horizontal (pharmacist and pharmacist) integration as a means of minimising overall transaction costs. Consequently, the relationship between institutions, transaction costs and organisational forms should be an important area of study for those evaluating pharmacy practice reforms.

History matters

At its core, NIE differs from mainstream economics because it assumes that the world is dynamic not static. In order to stress the evolutionary nature of their research, many economists working in this new area claim that “history matters”.

In other words, the institutions, property rights and transaction costs we face today, to some degree, were determined in the past.

The concern with historical development links NIE directly with ideas from evolutionary biology, in which natural selection and other evolutionary mechanisms shape our economies. From this perspective, community pharmacy could be seen as a “species” of health care providers with a common “routine”, which determines their ability to survive.

According to Nelson and Winter, firms are not profit maximisers, as assumed in traditional economics. Instead, producers follow regular behaviour patterns called “routines” for producing things, hiring staff, ordering, commissioning research and development, etc.

With predictable behaviour, no company survives by acting randomly, in the same way that no species of animal survives by randomly eating different food. Therefore, just as bees need pollen, NIE suggests that UK community pharmacists stay in business because they are specially organised to regularly collect dispensing fees.

Path dependency

Although NIE has borrowed many concepts from evolutionary biology, in 1985 the American economist, Paul David, made a unique contribution to the literature by suggesting the concept of “path dependency”. In short, the theory of path dependency implies that current economic situations are often (either by

chance or design) the result of a “lock-in” of a set of economic arrangements established in the past.

For example, David reported that the QWERTY keyboard — now used on most computers — was first introduced to slow typists down so they did not jam the key bars on their mechanical typewriters. Therefore, computer users (who do not have machines with key bars) are now stuck in an inefficient situation because, in the past, a slower keyboard was chosen as the industry standard.

In the current context, the theory of path dependency suggests that the economic situation currently facing community pharmacists may not be the best available but is constrained by (foreseen and unforeseen) events from the past. According to Sidney Holloway, the author of the official history of the Royal Pharmaceutical Society, pharmacists were originally members of the medical profession. However, the Pharmacy Act of 1852 began an unexpected process, which artificially split pharmacists from other medical practitioners by defining registered “pharmaceutical chemists” and “pharmaceutists” as practitioners not examined in medicine, surgery or midwifery.

Next, the 1858 Medical Act created a legal boundary between physicians, surgeons and apothecaries on one side, and chemists and druggists on the other. As a result, an artificial barrier was erected between pharmacists and the rest of the medical profession. According to Holloway, the artificial division of doctors and pharmacists created during the mid-1800s “does not represent a natural process of specialisation of function”. Indeed, “there is nothing inevitable about the present division between the practice of medicine and that of pharmacy”.

In other words, an unexpected path dependency exists in the structure of the pharmacy profession that limits the ways members can operate and the incomes they can make.

Evaluation

Although this approach may be new to many pharmacists and policy-makers, NIE offers an alternative framework for evaluating the structure, the operation and the outcomes of pharmacy systems.

With an emphasis on institutions, property rights, transaction costs and path dependencies, this set of evolutionary theories may be more suitable to the analysis of modern pharmacy than traditional economics. For instance, the concept of transaction costs highlights reforms proposed under the new contract for UK pharmacists that other economic theories may miss.

Similarly, searching backwards through history leads us to discover that, in 1913, Lloyd George gave UK community pharmacists the task of dispensing to stop family doctors profiteering from the provision of drugs. As a result, the structure of community pharmacy for the past 90 years has been determined by the inability of a distant government to monitor the behaviour of prescribing doctors properly.

Even though the approach can produce its own fascinating insights, NIE is inclusive rather than exclusive in the sense that its proponents combine thinking from different fields when formulating their ideas. For instance, history and sociology are both vital to theory construction in this area.

Given its emphasis on inclusion, NIE may be useful to pharmacy practice academics who have fully embraced sociological analysis in the past. Similarly, the well-established tradition within pharmacy for recording its history may make NIE an easy tool to use.

Therefore, we conclude that NIE should be seen as a viable addition to the plethora of theoretical approaches currently contributing to dynamism and diversity of pharmacy practice research.

References

1. Norgaard L, Morgall J, Bissell P. Arguments for theory-based pharmacy practice research. International Journal of Pharmacy Practice 2000;8:77–81.

2. Blaug M. The methodology of economics. Cambridge: University Press; 1992.

3. North DC. Institutions, institutional change and economic performance. Cambridge: University Press; 1990.

4. Buisson J. Local Pharmaceutical Services: a new threat or an opportunity for pharmacy? The Pharmaceutical Journal 2002;268:605–6.

5. Craig G. Understanding the NHS in England. The Pharmaceutical Journal 2003;271:121–23 (PDF 90K)

6. Lewis D. Conventions: a philosophical study. London: Basil Blackwell; 1986.

7. Gravelle H, Rees R. Micro-economics (2nd edition). London: Longman; 1992.

8. Baines D, Kay A, Hale C. OFT the beaten track? The Pharmaceutical Journal 2003;270:122–3.

9. Williamson O, Masten S (eds). The economics of transaction costs. Cheltenham: An Elgaer Critical Writings Reader; 1999.

10. Dewsbury C. Clinical governance: what it means for community pharmacy? The Pharmaceutical Journal 2002;268:119.

11. Coase R. The nature of the firm. Economica 1937;IV:386–405.

12. Hodgson G. How economics forgot history. London: Routledge; 2001.

13. Nelson R, Winter S. An evolutionary theory of economic change. London: Belknap Press;1982.

14. Davis P. Clio and the economics of QWERTY. American Economic Review 1985;2:332–7.

15. Holloway S. Royal Pharmaceutical society of Great Britain 1841–1991: a political and social history. London: The Pharmaceutical Press; 1991.

16. Baines D, Hale C. The economics of the new pharmacy contract. The Pharmaceutical Journal 2004;273;119–20.

17. Baines D. The medM manifesto for community pharmacists. Milton Keynes: medM Ltd; 2001.

View publication stats